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ABSTRACT

As part of a multiphased evaluation of vocational training provided by the Job Corps in fiscal year 1982, an assessment was made of the relative effectiveness of current Job Corps training operations. To arrive at an estimate of overall effectiveness, the researchers weighed the following factors: job-placement percentage, average wage of job, cost per training year, cost per job placement, absolute growth of new job openings from 1980 to 1990, and percentage of occupational growth for the same decade. Receiving the highest ratings were the following training areas: electronics technician, heavy equipment repairer, deckhand, clerk typist, machine operator, solar installer, auto body repairer, railway clerk, and kitchen helper. The following training programs were rated among the least effective: stenographer, nursery school teacher, duplicating machine operator, medical lab technician, and mail clerk. (Included in this report and its appendix are a series of tables detailing the relative effectiveness of Job Corps training provided for 108 occupations.) (MN)

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JOB CORPS

VOCATIONAL OFFERINGS REVIEW

Documentation Report No. 5

Assessment Of The Relative Effectiveness of Job Corps Current Training Occupations

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Documentation Report No. 5

Assessment of the Relative Effectiveness of Job Corps Current Training Occupations

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I. Introduction

This assessment and rating of current Job Corps occupations provides comparisons of current vocational offerings with each other, and,where it exists, a differentiation within occupations by major types of training providers. Thus, the review focuses on internal comparisons of vocational offerings. The study is not intended as an assessment of the overall effectiveness of the Job Corps vocational program.

To determine which of the vocational occupations in which Job Corps currently provides training have been relatively more effective than others, a method of comparing occupations was needed. A review of the literature was conducted to pick a suitable analysis system. The system chosen is based on ranking the performance of each occupation according to a predetermined set of criteria. Points are awarded to the occupation dependent upon its rank in relation to other occupations ranked on the same criteria. This method of analysis is well documented. The National Center for Research in Vocational Education called it the "Feature Analysis Method" and suggested that it be used for vocational program planning.[1] The Bureau of Labor Statistics (BLS) used a similar ranking system, employing decile scoring to rate occupations for "attractiveness" -- comparing them on growth, earnings and unemployment rates.[2]

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[1] Using Labor Market Information in Vocational Planning, Research and Development Series No. 228, The National Center for Research in Vocational Education, Ohio State University, Columbus, Ohio.

[2] Wash, Patrick D., "Comparing Occupations: Four Measures," Occupational Outlook Quarterly, U.S. Department of Labor, Bureau of Labor Statistics, Fall, 1982.

Using a decile scoring system to compare training occupations is a method that is especially rational in a recession-plagued year. For example, between FY 80 and FY 82, overall Job Corps placement fell from 68% to 54%. If an arbitrary measure, such as a 50% job placement rate had been used to evaluate occupational training effectiveness, many programs would have been jeopardized. However, by scoring those occupations in relation to the performance of other occupations in the same year, the overall effect of the recession is eliminated and the need to make arbitrary judgments and cut-offs is alleviated. The decile system makes this comparison by awarding points to an occupation according to its rank on a chosen criterion. The higher the rank, the more points, the lower the rank the fewer the points.

II. Methodology

The following criteria were used to rate Job Corps training occupations. They represent measures of success in past performance, relative cost, and future potential.

1. Percent Job Placed - The percent of corpsmembers (who were in Job Corps more than 90 days) placed in a job within three to six months after termination. High job placement rates denotes relative occupational effectiveness and is desirable.

2. Average Wage of Job - The average wage received by corpsmembers (in Job Corps more than 90 days) in each occupation who were job placed within three to six months after termination. The higher the average wage, the higher the ranking of the occupation.

3. Cost Per Training Year - All direct vocational training related costs, except capital costs, for each occupation divided by the number of corpsmembers years of training time in the occupation. (A corpsmember year may be one corpsmember trained for an entire year or three corpsmembers trained for four months apiece, etc.). Low training year costs are desirable.

4. Cost Per Job Placement - All direct vocational training related costs, except capital costs, for each occupation divided by the number of corpsmembers (who were in Job Corps for more than 90 days) placed in jobs. Low cost per job placement is desirable.

5. Absolute Growth 1980-90 - The Bureau of Labor Statistics' (BLS) projected number of new job openings from 1980 to 1990. The more new job openings, the better the rating of the occupation.

6. Percent Growth 1980-90 - The degree an occupation is expected to grow in relationship to its present size. If the BLS projected percentage growth is high, the rating of the occupation is high.

In FY 82, there were 80 distinct training occupations for which Job Corps trained at least 25 corpsmembers (who stayed longer than 90 days) nationally. Training in these occupations was procured by three different groups; Civilian Conservation Centers (CCC), National Contractors [unions and the National Association of Home Builders (NAHB)] and local centers. There were 66 center-contracted training occupations, 27 nationally contracted training occupations (19 union and 8 NAHB), 12 additional Civilian Conservation Center training occupations and three occupations which had more than 25 trainees

when the trainees from centers were added together with others from either CCC or national contractor training programs. These 108 training occupations, separated by type of training provider, were analyzed and scored according to their rank on each of the six criteria listed on the previous pages.

The following steps were taken to rank training occupations for relative effectiveness utilizing the BLS decile scoring system.

1. Each training occupation was ranked on each of the six criteria. The occupation scoring highest within each criteria was ranked first and the one scoring lowest, last (see Table V-A). Four of the criteria, percent job placed, average wage of job, cost per job placement and cost per training year, were used to rank all 108 training occupations which represented the 80 distinct occupations broken out by training provider (Center, CCC or national contractor). The two criteria dealing with labor force projections were used to rank only the 80 distinct occupations because the projections did not differ according to the training provider.

2. The six ranked lists were divided into deciles. For example, the list of 108 occupations, ranked according to percent job placed, was divided into 10 almost equal parts, with the first ranked 10 or 11 occupations in decile 10, the second 10 or 11 occupations in decile 9, etc. (see Table V-A-1). Following each ten ranked occupations a dividing line was drawn, unless the line would separate two occupations of equal or almost equal performance. In that case, the line was drawn after the 11th occupation. Therefore, two deciles contain ten occupations and eight contain 11 occupations for a total of 108 occupations divided into tenths, or deciles.

3. Training occupations were awarded points according to their decile ranking. If an occupation was in the tenth decile it received 10 points. Nine points were awarded an occupation in the ninth decile, eight points for the eighth decile, etc. The maximum point total an occupation could receive on a single criterion was ten -- the lowest was one (see Table V-A).

4. The decile scores for each criterion were added to obtain an unweighted effectiveness score for each occupation. (see Table V-B-1, total unweighted score.)

The unweighted score shown in Table V-B-1 would indicate the relative effectiveness of each of the training occupations if all six of the rating criteria were judged to be equally important. Using the unweighted score, average wage of job is just as important as percent job placed because an occupation can receive ten points for either variable dependent upon their decile ranking. However, most vocational educators would most likely judge percent job placed to be more important in judging the success of a training occupation than the average wage of the job, particularly in the case of entry-level occupations. Similarily, Job Corps professionals might view some of the criteria as being more important than others in rating effectiveness. For this reason, key administrators in Job Corps were asked to weight the six criteria according to their importance in judging Job Corps training occupation effectiveness.

According to the administrators, the most important variable in judging the relative effectiveness of an occupation within Job Corps was job placement. Two of the six criteria are directly related to job

placement--percent job placed and cost per job placement. They felt that because job placement is the immediate desired outcome of the Job Corps program, these variables should be weighted highest.

Average wage of the Job, while a valid factor in occupational effectiveness, was judged to be a less important criteria than job placement. It was acknowledged that entry level jobs traditionally are low paying and that the primary concern is to obtain employment and subsequent work experience for the corpsmembers.

Cost per training year was judged to be important for judging relative effectiveness but less so than cost per job placement.

The two projection variables were considered necessary for ensuring that Job Corps is training in occupations that will continue to produce an employment market for their trainees. However, general projections for the population as a whole were judged to be less important in rating an occupation than the proven placement rates of the Job Corps population.

Between the two projection variables, absolute growth, the number of jobs by which each occupation is expected to increase between 1980 and 1990, was considered to be more important than percentage growth. Large occupations, with high actual numbers of new job openings, were viewed to be better able to absorb Job Corps trainees than were smaller occupations, even if their percentage growth was large.

The six criteria represent a relative balance among the three considerations of past performance, relative cost, and future potential. Table A illustrates the weights of these variables as they were assigned by the Job Corps administrators.

TABLE A

Weights of Variables

Criteria	Weight
1. Percent Job Placed	4
2. Average Wage of Job	1
3. Cost Per Job Placement	4
4. Cost Per Training Year	2
5. Absolute Employment Growth 1980-1990	2
6. Percentage Employment Growth, 1980-1990	1

III. Analysis

The decile scores for each of the six criteria (Table V-B-1) were multiplied by their weight assignments to obtain a weighted score for each occupation on each criterion. These weighted scores were then added to obtain the total weighted score shown in the last column of Table V-B-1. The total weighted scores indicate the relative effectiveness of each occupation when compared to other Job Corps training occupations using this scoring system.

Table B shows the 108 training occupations ranked in order of their total relative effectiveness score. The table lists the number of trainees who were in Job Corps at least 90 days, the training provider (Center, CCC or National Contractor) and the total weighted effectiveness score for each of the training occupations. In case of a tie in the score, the equally scored occupations were ranked in order of number of trainees.

TABLE B

TRAINING OCCUPATION RELATIVE EFFECTIVENESS RANK

UPPER GROUP

TRAINING OCCUPATION EFFECTIVENESS RANK	NUMBER OF TRAINEES	TRAINING PROVIDER	TOTAL SCORE
1. Auto Parts Clerk	45	Center	126
2. Welder, Gas Metal Arc.	60	Center	116
3. Forklift Operator	27	Center	113
4. Kitchen Helper*	32	Center/CCC	111
5. Electronics Ass.	631	Center	110
6. Security Guard	84	Center	109
7. Machine Operator	82	Center	108
8. Sheet Metal Worker	26	Center	108
9. Warehouser	180	Center	106
10. Pest Control	42	Center	103
11. Retail Sales Clerk	433	Center	102
12. Insulation Worker	25	Center	101
13. Electrician	623	Center	99
14. Dental Assistant	87	Center	99
15. Cook, Short Order	54	Center	99
16. Ward Clerk	188	Center	98
17. Clerk, General	62	B.R.A.C.	98
18. Teller	27	Center	97
19. Clerk, General	598	Center	96
20. Electronic Tech.	25	Center	95 X
21. Nurse's Assistant	3,067	Center	94
22. Auto Service/Repairer	981	Center	94
23. Auto Service/Repairer	222	CCC	93
24. Cashier/Checker	161	Center	91
25. Diesel Mechanic	28	Center	91
26. Electrician	149	N.A.H.B.	90
27. Landscaper	397	Center	89
28. Auto Mechanic Helper	562	Center	88
29. Hosp. Diet. Aide	39	Center	88
30. Clerk-Typist	3,154	Center	87
31. Brick/Stone Mason	45	CCC	87
32. Auto Body Repair	777	Center	86
33. Painter	95	N.A.H.B.	86
34. Meat Cutter	71	Center	85

X Upper Standard Deviation Line
Mean Score = 78
Standard Deviation = 18

TABLE B

TRAINING OCCUPATION RELATIVE EFFECTIVENESS RANK

MIDDLE GROUP

TRAINING OCCUPATION EFFECTIVENESS RANK	NUMBER OF TRAINEES	TRAINING PROVIDER	TOTAL SCORE
35. Combination Welder	1,880	Center	84
36. Accounting Clerk	276	Center	84
37. Machinist	87	Center	84
38. Waiter/Waitress	31	Center	84
39. Painter	431	Center	83
40. Electricial Appl.	103	Center	83
41. Machine Operator, Lathe	45	Center	83
42. Professional Program Aide	42	Center	83
43. Plumber	277	Center	81
44. Custodial Maint.	232	N.A.H.B.	80
45. Solor Installer	139	N.A.H.B.	80
46. Licensed Prac. Nurse	76	Center	80
47. Cement Mason	55	CCC	80
48. Brick/Stone Mason	639	Center	79
49. Bookkeeper	313	Center	79
50. Clerk Typist	51	B.R.A.C.	79 ($)
51. Cook	1,940	Center	78
52. Welder, Spot	601	Center	78
53. Air Cond/Ref. Mech.	245	Center	78
54. Offset Printer	213	Center	78
55. Electrician Helper	62	Center	78
56. Plumber	209	N.A.H.B.	77
57. Draftser	160	Center	76
58. Custodial Maint.	1,226	Center	75
59. Brick/Stone Mason	88	N.A.H.B	75
60. Receptionist	144	Center	74
61. Welder, Combination	930	CCC	74
62. Auto Ser. Repair	131	U.A.W.	73 ($)
63. Ser. Stat. Atten.	121	Center	73
64. Telecommunications	56	AFL-CIO	73
65. Welder, Spot	50	CCC	73
66. Secretary	69	Center	72
67. Furniture Uphol.	60	Center	72
68. Auto Body Repair	51	U.A.W.	72
69. Carpenter Const.	693	Center	71
70. Carpenter Const.	220	N.A.H.B.	71
71. Radio/TV Repair	47	Center	71
72. Floor Layer*	34	Center/IBPAT	71

TABLE B

TRAINING OCCUPATION RELATIVE EFFECTIVENESS RANK

LOWER GROUP

TRAINING OCCUPATION EFFECTIVENESS RANK	NUMBER OF TRAINEES	TRAINING PROVIDER	TOTAL SCORE	
73. Service Stat. Att.	30	AFL-CIO	70	
74. Carpenter Const.	1,228	U.B.C.J.A.	69	
75. Cement Mason	338	OPE/CMI	69	
76. Teacher/Nursery	124	Center	69	
77. Combination Welder	44	AFL-CIO	69	
78. Engineer Aide/	30	I.U.O.E.	69 ($)	
79. Heavy Equip. Oper.	158	I.U.O.E.	68 ($)	
80. Auto Mech. Helper	109	CCC	68	
81. Tilesetter	58	I.M.I.	68 ($)	
82. Stock Clerk	85	CCC	67	
83. Small Gas Eng. Rep.	67	Center	67	
84. Calc. Mach. Oper.	47	Center	67 (&)	
85. Deckhand	34	I.M.U.	67 (&)	
86. Brick/Stone Mason	539	I.M.I.	65	
87. Forestry/Conser.	127	CCC	64	
88. Cement Mason	52	Center	64	
89. Medical Assistant	100	Center	63	
90. Painter	456	I.B.P.A.T.	62	
91. Animal Caretaker	25	Center	62	
92. Conts. Labor	93	CCC	62	
93. Heavy Equip. Rep.	27	I.U.O.E.	61 ($)	
94. Custodial Maint.	540	CCC	60	XX
95. Railway Clerk	101	B.R.A.C.	59 ($) (&)	
96. Cook	646	CCC	57	
97. Keypunch Operator	359	Center	57 (&)	
98. Baker	244	Center	57	
99. Heavy Equip. Oper.	227	Center	56	
100. Duplicating Machine Operator	73	Center	55	
101. Cement Mason	90	N.A.H.B.	54 ($)	
102. Cosmetologist	67	Center	54	
103. Plasterer	290	O.P.C.M.I	49 ($)	
104. Medical Lab Ass't.	27	Center/AFL-CIO	47	
105. Clerk-Typist	64	CCC	43 ($)	
106. Stenographer	46	Center	41 (&)	
107. Heavy Equip. Rep.	75	Center	31 ($)	
108. Mail Clerk	38	AFL-CIO	29 ($)	

*Data on trainees from two procurement groups were added together to have a smaple of more than 25 trainees.

$Cost Per Job Placement exceeds twice the National Average of $3,076.

&Projected Absolute Growth of less than 1,000 new jobs between 1980-1990.

XXLower Standard Deviation Line

TABLE C

CODE KEY FOR TRAINING PROVIDERS

CODE	EXPLANATION
AFL-CIO	American Federation of Labor Congress of Industrial Organizations
B.R.A.C.	Brotherhood of Railway and Airline Clerks
CENTER	Contract Center
CCC	Civilian Conservation Center
I.B.P.A.T.	International Brotherhood of Painters and Allied Trades
I.M.I.	International Masonry Institute
I.M.U.	International Maritime Union
I.U.O.E.	International Union of Operating Engineers
N.A.H.B.	National Association of Homebuilders
O.P./C.M.I.	Operation Plasterers and Cement Mason's International Association
U.A.W.	United Automobile Workers
U.B.C.J.A.	United Brotherhood of Carpenters and Joiners of America

The maximum possible weighted relative effectiveness score was 140 and the minimum was 14. The top-ranked training occupation was Auto Parts Clerk with a score of 126. Twelve occupations had a point total of 100 or more. The occupation scoring the lowest was Mail Clerk with a total score of 29. Six training occupations had scores lower than 50. Half of the occupations scored 78 or above and half of them scored 78 or below (median score).

Value judgements are inherent in any weighting system. Therefore, the results of the weighted scoring system was checked against a ranked list produced by using the unweighted scores of occupations as reported in Table V-B. The unweighted ranked occupations are displayed in attached Table V-C. The final ranked list produced by the weighted scoring (Table B) showed results similar to the unweighted rankings (Table V-C). Only four of the 33 training occupations in the upper groups of the unweighted rankings were not also in the upper group in the weighted ranks. Only seven of the 36 occupations in the bottom group of the weighted rankings were not also in the bottom group of the unweighted list. The weights assigned made minimal differences in judging the comparative effectiveness of training occupations within Job Corps. This indicates that the weights provided by the Job Corps managers were relatively balanced between outcome measures and cost variables, but slightly less emphasis was placed on the labor market projections in the weighted scheme causing some minor shifts.

IV. Results

The 108 rated occupations were divided into three groups -- upper, middle and lower. The upper group, or those occupations scoring 85 points or more, are performing well in comparison to other Job Corps training occupations. To be in the upper group, these occupations have to have a good rating in either past performance, relative cost, future potential or some combination of these criteria. None of these occupations showed excessive cost per job placement (as indicated on Table B by "$") or negative future growth (&). Those above the upper standard deviation line can be considered especially solid training occupations for the Job Corps population.

The middle group, those occupation scoring from 71 to 84, are considered acceptable training occupations. Either their past performance, relative cost or future potential was positive enough for them to be scored in this category. The occupations of Clerk Typists and Auto Service Repair, both trained by national contractors, are exceptions in this category. They each have cost per job placement rates exceeding twice the national average as indicated by the dollar signs ($) on Table B.

The bottom group includes those occupations scoring 70 or fewer points. Occupations in this group have either relatively low job placement rates, relatively high costs and relatively low growth potential or some combination of these factors. Within this bottom group are several training occupations that also have excessive costs ($) or negative growth (&). These occupations, along with the 16 occupations below the lower standard deviation line, are candidates for particularly close

examination at each local center which is providing the training.

The type of training provider or contract procurement group sometimes made a distinct difference in the relative effectiveness outcome and sometimes it did not. For example, Clerk General, trained by both national and cente. contractors, had scores of 98 and 96. Plumbers, also trained by these two groups had similar scores of 81 and 77. Electricians for both groups did well (scores of 99-90). Combination Welders did a least "fair" when training was procured by any of the three groups. Heavy Equipment Operators and Repairers were in the bottom third for both national and center contractors.

In other cases procurement type did make a difference in relative effectiveness score for a training occupation.

(1) Cement Mason training is in the middle group at CCCs but in the bottom group when provided by center and national contractors.

(2) Brick/Stone Mason training is in the upper group at centers and CCCs, in the middle group when provided by NAHB, and in the lower group when provided by the union contractor.

(3) Custodial Maintenance is in the middle group at centers and when provided by national contractors but in the bottom group at CCCs.

(4) Cooks are performing relatively better at centers than at CCCs.

(5) Auto Service Repair is in the upper group at centers and CCCs but has been flagged for excessive costs when provided by national contractors.

(6) Auto Mechanic Helpers are in the upper group at centers but in the bottom group at CCCs.

(7) Clerk Typist training is doing very well when procured by centers, shows high cost with National Contractors and is in the lower group and has high costs at CCCs.

Some of these differences may justify replacing one procurement group with another rather than eliminating the training occupation at the center.

This section of Documentation Report No. 5 has provided a summary of the findings of the comparative performance of the current Job Corps occupations according to a set of specified criteria. The Final Report contains specific recommendations regarding actions to be taken as a result of the findings of the review.

TABLE V-A-1

TRAINING OCCUPATION RANK AND DECILE SCORE ON RATING VARIABLES

PERCENT JOB PLACED

TRAINING OCCUPATION RANK	PROCUREMENT TYPE	OUTCOME	DECILE
1. Electronic Tech.	Center	88.0%	10
2. Heavy Equip. Repair	I.U.O.E.	85.1	10
3. Deckhand	I.M.U.	82.4	10
4. Clerk Typist	B.R.A.C.	80.3	10
5. Machine Operator	Center	78.0	10
6. Solar Installer	N.A.H.B.	72.2	10
7. Auto Body Repair	U.A.W.	70.5	10
8. Railway Clerk	B.R.A.C.	70.2	10
9. Kitchen Helper*	Center/CCC	68.7	10
10. Electrician	N.A.H.B.	67.8	10
11. Clerk, General	B.R.A.C.	67.8	10
12. Heavy Equip. Oper.	I.U.O.E.	67.7	9
13. Engineering Aide/Rodman	I.U.O.E.	66.6	9
14. Forklift Operator	Center	66.6	9
15. Cement Mason	CCC	65.4	9
16. Auto Parts Clerk	Center	64.4	9
17. Cook, Short Order	Center	62.9	9
18. Brick/Stone Mason	CCC	62.2	9
19. Welder, Gas Metal Arc.	Center	61.6	9
20. Sheet Metal Worker	Center	61.5	9
21. Diesel Mechanic	Center	60.7	9
22. Security Guard	Center	60.7	9
23. Tilesetter	I.M.I.	60.3	8
24. Plumber	N.A.H.B.	60.2	8
25. Offset Printer	Center	60.0	8
26. Dental Assistant	Center	59.7	8
27. Auto Service/Repair	U.A.W.	59.5	8
28. Meat Cutter	Center	59.1	8
29. Custodial Maint.(B & A)	N.A.H.B.	59.0	8
30. Painters	N.A.H.B.	58.9	8
31. Warehouseman	Center	58.3	8
32. Auto Service/Repair	CCC	58.1	8
33. Carpentry Const.	U.B.C.J.A.	57.9	8
34. Machine Oper. Lathe	Center	57.7	7
35. Forestry and Conser.	CCC	57.4	7
36. Machinist	Center	57.4	7
37. Pest Control	Center	57.1	7
38. Painter	I.B.P.A.T.	56.3	7
39. Cement Mason	O.P.C.M.I.	56.2	7
40. Plasterers	O.P.C.M.I.	56.1	7
41. Animal Caretakers	Center	56.0	7
42. Welder, Spot	CCC	56.0	7
43. Construction, Labor	CCC	55.9	7
44. Brick/Stone Mason	N.A.H.B.	54.6	7

TABLE V-A-1

TRAINING OCCUPATION RANK AND DECILE SCORE ON RATING VARIABLES

PERCENT JOB PLACED

TRAINING OCCUPATION RANK	PROCUREMENT TYPE	OUTCOME	DECILE
45. Furniture Uphol.	Center	54.5	6
46. Carpenter, Const.	N.A.H.B.	54.1	6
47. Electronic Assembly	Center	54.0	6
48. Combination Welder	CCC	53.9	6
49. License Prac. Nurse	Center	53.9	6
50. Floor Layer*	Center	52.9	6
51. Brick/Stone Mason	I.M.I.	52.6	6
52. Insulation Worker	Center	52.0	6
53. Waiter/Waitress	Center	51.6	6
54. Combination Welder	AFL-CIO	50.9	6
55. Stock Clerk	CCC	50.5	6
56. Combination Welder	Center	50.2	5
57. Plumber	Center	50.1	5
58. Electricial Appl. Rep.	Center	49.5	5
59. Heavy Equip. Oper.	Center	49.3	5
60. Secretary	Center	49.2	5
61. Cook	CCC	48.6	5
62. Auto Body Repair	Center	48.3	5
63. Telecommunications	AFL-CIO	48.2	5
64. Auto Mech. Helper	Center	48.2	5
65. Service Stat. Atten.	Center	47.9	5
66. Electrician	Center	47.8	5
67. Auto Mech. Helper	CCC	47.7	4
68. Cosmetologist	Center	47.7	4
69. Landscaper	Center	47.6	4
70. Auto Service/Repair	Center	47.6	4
71. Custodial Maint.	CCC	46.6	4
72. Air Cond./Ref. Mech.	Center	46.1	4
73. Draftsman	Center	45.0	4
74. Accounting Clerk	Center	44.9	4
75. Ward Clerk	Center	44.1	4
76. Retail Sale Clerk	Center	43.6	4
77. Small Gas Eng. Repair	Center	43.2	4
78. Carpenter Const.	Center	43.1	3
79. Keypunch Operator	Center	42.6	3
80. Painter	Center	42.6	3
81. Radio/TV Repair	Center	42.5	3
82. Custodial Maint.	Center	42.4	3
83. Clerk, General	Center	42.4	3
84. Cement Mason	Center	42.3	3
85. Cement Mason	N.A.H.B.	42.2	3
86. Electrician Helper	Center	41.9	3
87. Hospital Dietary Aide	Center	41.0	3
88. Medical Assistant	Center	41.0	3

TABLE V-A-1

TRAINING OCCUPATION RANK AND DECILE SCORE ON RATING VARIABLES

PRECENT JOB PLACED

TRAINING OCCUPATION RANK	PROCUREMENT TYPE	OUTCOME	DECILE
89. Teller	Center	40.7	2
90. Brick/Stone Mason	Center	40.2	2
91. Heavy Equip. Repair	Center	40.0	2
92. Service Stat. Atten.	AFL-CIO	40.0	2
93. Welder, Spot	Center	39.6	2
94. Cook	Center	39.2	2
95. Bookkeeper	Center	38.3	2
96. Prof. Program Aide	Center	38.0	2
97. Nurse's Assistant	Center	37.9	2
98. Clerk Typist	Center	36.2	2
99. Clerk Typist	CCC	35.9	1
100. Baker	Center	35.6	1
101. Receptionist	Center	35.4	1
102. Cashier/Checker	Center	34.7	1
103. Calcu. Mach. Oper.	Center	34.0	1
104. Stenographer	Center	32.6	1
105. Teacher, Nursery	Center	30.6	1
106. Dupl. Mach. Oper.	Center	21.9	1
107. Medical Lab. Tech.	Center	18.5	1
108. Mail Clerk	AFL-CIO	13.1	1

TABLE V-A-2

TRAINING OCCUPATION RANK AND DECILE SCORE ON RATING VARIABLES

AVERAGE WAGE

TRAINING OCCUPATION RANK	PROCUREMENT TYPE	OUTCOME	DECILE
1. Clerk-Typist	B.R.A.C.	$6.39	10
2. Electronic Technician	Center	6.19	10
3. Railway Clerk	B.R.A.C.	5.93	10
4. Deckhand	N.M.U.	5.65	10
5. Heavy Equip. Operator	I.U.O.E.	5.14	10
6. Licensed Prac. Nurse	Center	5.04	10
7. Floor Layer*	Center/IBPAT	5.02	10
8. Machine Operator	Center	4.87	10
9. Tilesetter	I.M.I.	4.80	10
10. Plasterer	O.P.C.M.I.	4.73	10
11. Carpenter, Const.	U.B.C.J.A.	4.70	10
12. Cement Mason	O.P.C.M.I.	4.69	9
13. Eng. Aide/Rodman	I.U.O.E.	4.61	9
14. Auto Body Repair	U.A.W.	4.54	9
15. Painter	I.B.P.A.T.	4.53	9
16. Brick/Stone Mason	I.M.I.	4.53	9
17. Heavy Equip. Repair	I.U.O.E.	4.53	9
18. Solar Installer	N.A.H.B.	4.52	9
19. Welder, Spot	CCC	4.51	9
20. Combination Welder	AFL-CIO	4.50	9
21. Auto Service Repair	U.A.W.	4.45	9
22. Clerk, General	B.R.A.C.	4.45	9
23. Combination Welder	Center	4.43	8
24. Cement Mason	N.A.H.B.	4.43	8
25. Combination Welder	CCC	4.40	8
26. Heavy Equipment Oper.	Center	4.36	8
27. Forklift Operator	Center	4.31	8
28. Sheet Metal Worker	Center	4.28	8
29. Welder, Gas Metal Arc	Center	4.27	8
30. Machinist	Center	4.27	8
31. Plumber	N.H.A.B.	4.21	8
32. Welder, Spot	Center	4.19	8
33. Animal Caretaker	Center	4.15	8
34. Draftsman	Center	4.14	7
35. Electrician	N.A.H.B.	4.13	7
36. Auto Service Repair	CCC	4.12	7
37. Stock Clerk	CCC	4.11	7
38. Diesel Mechanic	Center	4.09	7
39. Offset Printer	Center	4.07	7
40. Meat Cutter	Center	4.05	7
41. Brick/Stone Mason	CCC	4.04	7
42. Painter	N.A.H.B.	4.02	7
43. Brick/Stone Mason	N.A.H.B.	4.02	7
44. Dental Assistant	Center	4.02	7
45. Heavy Equip. Repair	Center	4.02	7

TABLE V-A-2

TRAINING OCCUPATION RANK AND DECILE SCORE ON RATING VARIABLES

AVERAGE WAGE

TRAINING OCCUPATION RANK	PROCUREMENT TYPE	OUTCOME	DECILE
46. Warehouseman	Center	4.00	6
47. Forestry & Conser.	CCC	3.99	6
48. Electrician	Center	3.98	6
49. Insulation Worker	Center	$3.98	6
50. Medical Assistant	Center	3.95	6
51. Carpenter, Const.	N.A.H.B.	3.94	6
52. Electronic Assembler	Center	3.94	6
53. Cement Mason	CCC	3.93	6
54. Custodial Maint.	Center	3.92	6
55. Accounting Clerk	Center	3.91	6
56. Keypunch Operator	Center	3.90	6
57. Clerk, General	Center	3.89	5
58. Prof. Program Aide	Center	3.89	5
59. Auto Mechanic Helper	Center	3.89	5
60. Machine Oper., Lathe	Center	3.89	5
61. Construction Labor	CCC	3.89	5
62. Auto Body Repair	Center	3.87	5
63. Teller	Center	3.87	5
64. Cook	CCC	3.87	5
65. Auto Parts Clerk	Center	3.86	5
66. Radio/TV Repair	Center	3.86	5
67. Custodial Maint.	CCC	3.85	5
68. Auto Service Repair	Center	3.84	4
69. Landscaper	Center	3.84	4
70. Electricial Appl. Rep.	Center	3.84	4
71. Plumber	Center	3.82	4
72. Carpenter, Const.	Center	3.79	4
73. Clerk-Typist	CCC	3.79	4
74. Stenographer	Center	3.78	4
75. Clerk-Typist	Center	3.77	4
76. Baker	Center	3.77	4
77. Cook, Short Order	Center	3.76	4
78. Telecommunications	AFL-CIO	3.76	4
79. Pest Control	Center	3.75	3
80. Bookkeeper	Center	3.75	3
81. Security Guard	Center	3.75	3
82. Service Stat. Atten.	Center	3.74	3
83. Brick/Stone Mason	Center	3.74	3
84. Auto Mechanic Helper	CCC	3.74	3
85. Ward Clerk	Center	3.73	3
86. Furniture Uphol.	Center	3.73	3
87. Air Cond./Ref. Mech.	Center	3.72	3
88. Custodial Maintenance	N.A.H.B.	3.72	3

TABLE V-A-2

TRAINING OCCUPATION RANK AND DECILE SCORE ON RATING VARIABLES

AVERAGE WAGE

TRAINING OCCUPATION RANK	PROCUREMENT TYPE	OUTCOME	DECILE
89. Painter	Center	3.69	2
90. Service Stat. Atten.	AFL-CIO	3.69	2
91. Cement Mason	Center	3.68	2
92. Receptionist	Center	3.65	2
93. Cook	Center	3.65	2
94. Cosmetologist	Center	3.64	2
95. Kitchen Helper*	Center/CCC	3.61	2
96. Nurse Assistant	Center	3.60	2
97. Small Gas Eng. Repair	Center	3.60	2
98. Cashier/Checker	Center	3.60	2
99. Dup. Mach. Operator	Center	3.59	1
100. Retail Sales Clerk	Center	3.51	1
101. Secretary	Center	3.50	1
102. Calculating Mach. Oper.	Center	3.47	1
103. Medical Lab Assistant	Center	3.47	1
104. Teacher, Nursery	Center	3.40	1
105. Mail Clerk	AFL-CIO	3.39	1
106. Waiter/Waitress	Center	3.35	1
107. Electrician Helper	Center	3.35	1
108. Hospital Dietary Aide	Center	3.22	1

* This occupation has more than 25 trainees only when data from two procurement types are combined.

TABLE V-A-3

TRAINING OCCUPATION RANK AND DECILE SCORE ON RATING VARIABLES

COST PER JOB PLACEMENT

TRAINING OCCUPATION RANK	PROCUREMENT TYPE	OUTCOME	DECILE
1. Pest Control	Center	$ 607	10
2. Professional Program Aide	Center	959	10
3. Warehouseman	Center	1,000	10
4. Welder, Gas Metal Arc	Center	1,022	10
5. Auto Parts Clerk	Center	1,054	10
6. Landscaper	Center	1,080	10
7. Electronic Assembler	Center	1,116	10
8. Forklift Operator	Center	1,163	10
9. Teller	Center	1,209	10
10. Retail Sales Clerk	Center	1,215	10
11. Painter	Center	1,290	10
12. Calculating Machine Operator	Center	1,305	9
13. Clerk, General	Center	1,340	9
14. Hospital Dietician Aide	Center	1,372	9
15. Insulation Worker	Center	1,499	9
16. Cashier/Checker	Center	1,520	9
17. Ward Clerk	Center	1,575	9
18. Teacher, Nursery	Center	1,605	9
19. Electrical Appliance Repair	Center	1,643	9
20. Electrician	Center	1,644	9
21. Nurse's Assistant	Center	1,646	9
22. Machine Operator	Center	1,711	8
23. Auto Service/Repair	Center	1,731	8
24. Cook	Center	1,737	8
25. Clerk Typist	Center	1,763	8
26. Security Guard	Center	1,800	8
27. Kitchen Helper*	Center/CCC	1,822	8
28. Brick/Stone Mason	Center	1,835	8
29. Auto Body Repair	Center	1,836	8
30. Cook, Short Order	Center	1,859	8
31. Air Cond/Ref Mechanic	Center	1,873	8
32. Sheet Metal Worker	Center	1,879	8
33. Duplicating Machine Operator	Center	1,947	7
34. Dental Assistant	Center	1,957	7
35. Receptionist	Center	2,012	7
36. Furniture Upholster	Center	2,070	7
37. Accounting Clerk	Center	2,095	7

TABLE V-A-3

TRAINING OCCUPATION RANK AND DECILE SCORE ON RATING VARIABLES
COST PER JOB PLACEMENT

TRAINING OCCUPATION RANK	PROCUREMENT TYPE	OUTCOME	DECILE
38. Service Station Att.	AFL-CIO	$2,147	7
39. Bookkeeper	Center	2,148	7
40. Waiter/Waitress	Center	2,174	7
41. Telecommunications	AFL-CIO	2,214	7
42. Welder, Spot	Center	2,265	7
43. Meat Cutter	Center	2,321	6
44. Machinist	Center	2,325	6
45. Combination Welder	Center	2,329	6
46. Baker	Center	2,338	6
47. Machine Oper. Lathe	Center	2,358	6
48. Painter	N.A.H.B.	2,377	6
49. Keypunch Operator	Center	2,404	6
50. Auto Mech. Helper	Center	2,424	6
51. Plumber	Center	2,426	6
52. Electrician Helper	Center	2,453	6
53. Clerk, General	B.R.A.C.	2,556	6
54. Service Stat. Att.	Center	2,565	5
55. Offset Printer	Center	2,567	5
56. Radio/TV Repair	Center	2,570	5
57. Forestry & Conser.	CCC	2,626	5
58. Draftsman	Center	2,637	5
59. Carpenter, Const.	Center	2,742	5
60. Custodial Maint.	Center	2,767	5
61. Diesel Mechanic	Center	2,836	5
62. Auto Service /Repair	CCC	2,911	5
63. Small Gas Eng. Rep.	Center	2,971	5
64. Cement Mason	Center	3,018	5
65. Auto Mech. Helper	CCC	3,129	4
66. Solar Installer	N.A.H.B.	3,140	4
67. Combination Welder	CCC	3,250	4
68. Animal Caretaker	Center	3,277	4
69. Combination Welder		3,386	4
70. Medical Assistant	Center	3,492	4
71. Electronic Tech.	Center	3,552	4
72. Brick/Stone Mason	CCC	3,559	4
73. Cosmetologist	Center	3,651	4
74. Floor Layer*	Center/IBPAT	3,740	4
75. Electrician	N.A.H.B.	3,791	4

TABLE V-A-3

TRAINING OCCUPATION RANK AND DECILE SCORE ON RATING VARIABLES

COST PER JOB PLACEMENT

TRAINING OCCUPATION RANK	PROCUREMENT TYPE	OUTCOME	DECILE
76. Carpenter, Const.	N.A.H.B.	3,824	3
77. Cement Mason	CCC	3,945	3
78. Plumber	N.A.H.B.	4,008	3
79. Secretary	Center	4,409	3
80. Custodial Maint.	N.A.H.B.	4,440	3
81. Welder, Spot	CCC	4,493	3
82. Deckhand	I.M.U.	4,677	3
83. Stenographer	Center	4,788	3
84. Stock Clerk	CCC	4,817	3
85. Brick/Stone Mason	N.A.H.B.	4,879	3
86. Licensed Prac. Nurse	Center	4,854	3
87. Med. Lab Assistant	Center/AFL-CIO	4,937	2
88. Cook	CCC	5,169	2
89. Custodial Maint.	CCC	5,262	2
90. Auto Body Repair	U.A.W.	5,457	2
91. Construction Labor	CCC	5,493	2
92. Cement Mason	OPCMI	5,801	2
93. Heavy Equip. Operator	Center	5,956	2
94. Brick/Stone Mason	I.M.I.	6,069	2
95. Tilesetter	I.M.I.	6,313	2
96. Cement Mason	N.A.H.B.	6,567	2
97. Painter	IBPAT	6,588	2
98. Clerk Typist	CCC	6,666	1
99. Plasterer	OPCMI	6,928	1
100. Auto/Service Repair	U.A.W.	7,777	1
101. Clerk Typist	CCC	7,780	1
102. Carpenter Const.	UBCJA	8,117	1
103. Heavy Equip. Repair	Center	8,278	1
104. Railway Clerk	B.R.A.C.	8,568	1
105. Heavy Equip. Repair	I.U.O.E.	8,891	1
106. Mail Clerk	AFL-CIO	10,046	1
107. Heavy Equip. Operator	I.U.O.E.	11,337	1
108. Engineering Aide Rodman	I.U.O.E.	13,384	1

TABLE V-A-4

TRAINING OCCUPATION RANK AND DECILE SCORE ON RATING VARIABLES

COST PER TRAINING YEAR

TRAINING OCCUPATION RANK	PROCUREMENT TYPE	OUTCOME	DECILE
1. Teller	Center	$ 458	10
2. Prof. Program Aide	Center	480	10
3. Insulation Worker	Center	487	10
4. Cashier/Checker	Center	545	10
5. Clerk-Typist	Center	559	10
6. Auto Parts Clerk	Center	577	10
7. Retail Sales Clerk	Center	588	10
8. Ward Clerk	Center	589	10
9. Cal. Mach. Operator	Center	596	10
10. Clerk, General	Center	606	10
11. Radio/TV Repair	Center	619	10
12. Receptionist	Center	622	9
13. Bookkeeper	Center	633	9
14. Pest Control	Center	633	9
15. Electricial Appl. Rep.	Center	650	9
16. Small Gas Eng. Rep.	Center	653	9
17. Nurse's Assistant	Center	656	9
18. Stenographer	Center	658	9
19. Hosp. Dietician Aide	Center	665	9
20. Electrician	Center	666	9
21. Accounting Clerk	Center	689	9
22. Sheet Metal Worker	Center	699	9
23. Electronics Assembler	Center	711	8
24. Cook	Center	711	8
25. Electrician Helper	Center	717	8
26. Warehouseman	Center	724	8
27. Auto Body Repair	Center	727	8
28. Auto Service Repair	Center	758	8
29. Brick/Stone Mason	Center	764	8
30. Painter	Center	775	8
31. Dup. Mach. Operator	Center	779	8
32. Medical Lab. Tech.	Center/AFL-CIO	814	8
33. Welder, Spot	Center	824	7
34. Furniture Uphol.	Center	828	7
35. Forklift Operator	Center	837	7
36. Landscaper	Center	865	7
37. Baker	Center	869	7
38. Machine Operator	Center	883	7
39. Auto Mechanic Helper	Center	896	7
40. Carpenter, Const.	Center	907	7
41. Service Stat. Atten.	AFL-CIO	920	7
42. Security Guard	Center	927	7
43. Plumber	Center	958	7

TABLE V-A-4

TRAINING OCCUPATION RANK AND DECILE SCORE ON RATING VARIABLES

COST PER TRAINING YEAR

TRAINING OCCUPATION RANK	PROCUREMENT TYPE	OUTCOME	DECILE
44. Keypunch Operator	Center	971	6
45. Medical Assistant	Center	974	6
46. Combination Welder	Center	980	6
47. Air Cond/Ref. Mech.	Center	989	6
48. Welder, Gas Metal Arc.	Center	995	6
49. Telecommunications	AFL-CIO	996	6
50. Machine, Oper. Lathe	Center	1.022	6
51. Meat Cutter	Center	1,037	6
52. Service Stat. Atten.	Center	1,055	6
53. Custodial Maint.	Center	1,068	6
54. Dental Assistant	Center	1,082	6
55. Machinist	Center	1,086	5
56. Mail Clerk	AFL-CIO	1,092	5
57. Draftsman	Center	1,124	5
58. Kitchen Helper*	Center/CCC	1,145	5
59. Cement Mason	Center	1,185	5
60. Secretary	Center	1,189	5
61. Teacher, Nursery	Center	1,245	5
62. Diesel Mechanic	Center	1,303	5
63. Offset Printer	Center	1,341	5
64. Cosmetologist	Center	1,358	5
65. Painter	N.A.H.B.	1,401	5
66. Brick/Stone Mason	N.A.H.B.	1,436	4
67. Combination Welder	AFL-CIO	1,451	4
68. Carpenter, Const.	N.A.H.B.	1,463	4
69. Floor Layer*	Center/IBPAT	1,464	4
70. Clerk-Typist	CCC	1,503	4
71. Custodial Maint.	N.A.H.B.	1,601	4
72. Auto Mech. Helper	CCC	1,678	4
73. Brick/Stone Mason	CCC	1,748	4
74. Auto Service Repair	CCC	1,755	4
75. Licensed Prac. Nurse	Center	1,813	4
76. Electrician	N.A.H.B.	1,859	4
77. Plumber	N.A.H.B.	1,906	3
78. Cement Mason	N.A.H.B.	1,965	3
79. Forestry & Conser.	CCC	1,976	3
80. Solar Installer	N.A.H.B.	2,004	3
81. Cook, Short Order	Center	2,107	3
82. Waiter/Waitress	Center	2,174	3
83. Combination Welder	CCC	2,330	3
84. Cement Mason	CCC	2,449	3
85. Heavy Equipment Rep.	Center	2,484	3
86. Custodial Maint.	CCC	2,516	3

TABLE V-A-4

TRAINING OCCUPATION RANK AND DECILE SCORE ON RATING VARIABLES

COST PER TRAINING YEAR

TRAINING OCCUPATION RANK	PROCUREMENT TYPE	OUTCOME	DECILE
87. Cement Mason	O.P.C.M.I.	2,662	2
88. Cook	CCC	2,687	2
89. Tilesetter	I.M.I.	2,694	2
90. Welder, Spot	CCC	2,796	2
91. Plasterer	O.P.C.M.I.	2,824	2
92. Heavy Equip. Operator	Center	2,863	2
93. Brick/Stone Mason	I.M.I.	2,892	2
94. Painter	I.B.P.A.T.	2,970	2
95. Electronics Tech.	Center	3,006	2
96. Stock Clerk	CCC	3,046	2
97. Clerk-Typist	B.R.A.C.	3,097	2
98. Clerk, General	B.R.A.C.	3,158	1
99. Animal Caretaker	Center	3,277	1
100. Construction Laborer	CCC	3,283	1
101. Deckhand	I.M.U.	3,446	1
102. Carpenter, Const.	U.B.C.J.A.	3,521	1
103. Auto Body Repair	U.A.W.	3,638	1
104. Auto Service Repair	U.A.W.	3,889	1
105. Railway Clerk	B.R.A.C.	4,138	1
106. Heavy Equip. Repair	I.U.O.E.	5,680	1
107. Heavy Equip. Oper.	I.U.O.E.	6,318	1
108. Engineering Aide/ Rodman	I.U.O.E.	8,923	1

* Data on trainees from two procurement groups were added together to have a sample of more than 25 trainees.

TABLE V-A-5

TRAINING OCCUPATION RANK AND DECILE SCORE ON RATING VARIABLES

ABSOLUTE GROWTH

1980-1990

TRAINING OCCUPATION RANK	PROCUREMENT TYPE	OUTCOME	DECILE
1. Secretary	Center	700,000+	10
2. Nurse's Assistant	Center	506,000	10
3. Custodial Maintenance	Center/CCC/National	491,000	10
4. Retail Sales Clerk	Center	465,000	10
5. Auto Parts Clerk	Center	465,000	10
6. Cashier/Checker	Center	446,000	10
7. General Clerk	Center/National	366,000	10
8. Ward Clerk	Center	366,000	10
9. Waiter/Waitress	Center	361,000	9
10. Construction Labor	CCC	250,000	9
11. Electronic Assembler	Center	241,000	9
12. Kitchen Helper	Center/CCC	231,000	9
13. Auto Mechanic Helper	Center/CCC	209,000	9
14. Electrician Helper	Center	209,000	9
15. Clerk Typist	Center/CCC/National	184,000	9
16. Auto Service Repair	Center/CCC/National	179,000	9
17. Licensed Practical Nurse	Center	177,000	8
18. Bookkeeper	Center	168,000	8
19. Security Guard	Center	152,000	8
20. Stock Clerk	CCC	142,000	8
21. Carpentry Construction	Center/CCC/National	119,000	8
22. Hospital Dietary Aide	Center	110,000	8
23. Electronic Technician	Center	109,000	8
24. Teller	Center	108,000	8
25. Combination Welder	Center/CCC/National	107,000	7
26. Welder, Spot	Center/CCC	107,000	7
27. Welder, Gas Metal Arc	Center	107,000	7
28. Receptionist	Center	97,000	7
29. Accounting Clerk	Center	94,000	7
30. Cook, Short Order	Center	93,000	7
31. Electrician	Center/National	90,000	7
32. Draftsman	Center	87,000	7
33. Cook	Center/CCC/National	86,720	6
34. Teacher, Nursery	Center	78,056	6
35. Landscaper	Center	75,641	6
36. Engineering Aide/Rodman	National Contract	74,369	6
37. Service Station Attendent	Center/National	74,100	6
38. Heavy Equipment Operator	Center/National	72,663	6
39. Plumber	Center/National	71,805	6
40. Forklift Operator	Center	59,356	6
41. Dental Assistant	Center	54,360	5
42. Machinist	Center	44,255	5
43. Warehouseman	Center	43,470	5

TRAINING OCCUPATION RANK AND DECILE SCORE ON RATING VARIABLES

ABSOLUTE GROWTH

1980-1990

TRAINING OCCUPATION RANK	PROCUREMENT TYPE	OUTCOME	DECILE
44. Diesel Mechanic	Center	38,438+	5
45. Cement Mason	Center/CCC/National	37,098	5
46. Brick/Stone Mason	Center/CCC/National	33,975	5
47. Painter	Center/National	33,840	5
48. Sheet Metal Worker	Center	33,070	5
49. Medical Lab Technician	Center/National	31,040	4
50. Air Conditioner/Refrigerator Mechanic	Center	30,389	4
51. Machine Operator, Lathe	Center	29,404	4
52. Machine Operator	Center	29,080	4
53. Small Gas Engine Repair	Center	28,238	4
54. Cosmetology	Center	27,453	4
55. Medical Lab Assistant	Center	26,447	4
56. Meat Cutter	Center	23,923	4
57. Auto Body Repair	Center/National	23,324	3
58. Professional Program Aide	Center	21,891	3
59. Radio/TV Repair	Center	13,506	3
60. Mail Clerk	Center/National	13,405	3
61. Insulation Worker	Center	12,977	3
62. Telecommunications	National Contract	11,515	3
63. Offset Printer	Center	11,272	3
64. Animal Caretaker	Center	10,222	3
65. Heavy Equipment Repair	Center/National	10,003	2
66. Baker	Center	9,758	2
67. Solar Installers**	National Contract	9,500	2
68. Pest Control	Center	8,097	2
69. Floor Layer	Center/National	6,320	2
70. Tilesetter	National Contract	5,099	2
71. Duplicating Machine Operator	Center	4,564	2
72. Electrical Appliances Repair	Center	3,928	2
73. Plasterer	Center/National	1,639	1
74. Forestry & Conservation	CCC	1,512	1
75. Furniture Upholsterer	Center	1,331	1
76. Calculating Machine Operator *	Center	885	1
77. Deckhand *	National Contract	726	1
78. Railway Clerk*	National Contract	-1,035	1
79. Stenographer*	Center	-25,317	1
80. Keypunch Operator *	Center	-31,420	1

* Occupations flagged for having negative growth

** Statistics for Solar Installer were not available from BLS 1980 projections. This figure is based on the best estimate of Marvin Cetron, Ph.D., expert in labor market forecasting.

TABLE V-A-6

TRAINING OCCUPATION RANK AND DECILE SCORE ON RATING VARIABLES

PERCENTAGE GROWTH

1980-1990

TRAINING OCCUPATION RANK	PROCUREMENT TYPE	OUTCOME	DECILE
1. Nurse's Assistant	Center	43.3%	10
2. Dental Assistant	Center	39.6	10
3. Cement Mason	Center/CCC/National	35.9	10
4. Medical Lab Technician	Center/National	35.4	10
5. Licensed Practical Nurse	Center	34.9	10
6. Tilesetter	National Contract	33.4	10
7. Brick/Stone Mason	Center/CCC/National	32.2	10
8. Pest Control	Center	31.6	10
9. Floor Layer	Center/National	31.5	9
10. Insulation Worker	Center	30.6	9
11. Medical Lab Assistant	Center	29.8	9
12. Electronic Technician	Center	29.8	9
13. Secretary	Center	29.2	9
14. Cashier/Checker	Center	28.7	9
15. Draftsman	Center	27.8	9
16. Kitchen Helper	Center	27.7	9
17. Radio/TV Repair	Center	26.2	8
18. Auto Service Repair	Center/CCC/National	26.0	8
19. Cook	Center/CCC	25.8	8
20. Teller	Center	25.3	8
21. Receptionist	Center	24.6	8
22. Security Guard	Center	23.6	8
23. Diesel Mechanic	Center	22.6	8
24. Auto Mechanic Helper	Center/CCC	22.0	7
25. Electrician Helper	Center	22.0	7
26. Baker	Center	21.8	7
27. Cook, Short Order	Center	21.4	7
28. Waiter/Waitress	Center	21.4	7
29. Plumber	Center/National	20.9	7
30. Air Conditioner/Refrigerator Mechanic	Center	20.6	7
31. Auto Body Repair	Center/National	20.4	7
32. Welder Combination	Center/CCC/National	20.0	6
33. Welder, Spot	Center/CCC	20.0	6
34. Welder, Gas Metal Arc	Center	20.0	6
35. Electronic Assembler	Center	19.8	6
36. Service Station Attendant	Center/National	19.0	6
37. Machine Operator, Lathe	Center	18.9	6
38. Bookkeeper	Center	18.8	6
39. Teacher, Nursery	Center	18.8	6
40. Engineering Aide/Rodman	National Contract	18.6	6
41. Solar Installer*	National Contract	18.6	5
42. Hospital Dietary Aide	Center	18.4	5
43. Custodial Maintenance	Center/CCC/National	18.3	5
44. Electrician	Center/National	17.9	5

TRAINING OCCUPATION RANK AND DECILE SCORE ON RATING VARIABLES

PERCENTAGE GROWTH

1980-1990

TRAINING OCCUPATION RANK	PROCUREMENT TYPE	OUTCOME	DECILE
45. Carpentry Construction	Center/National	17.8%	5
46. Retail Sales Clerk	Center	17.7	5
47. Auto Parts Clerk	Center	17.7	5
48. Clerk Typist	Center/CCC/National	17.5	5
49. Stock Clerk	CCC	17.4	4
50. Calculating Machine Operator	Center	17.3	4
51. Heavy Equipment Operator	Center/National	17.3	4
52. Professional Program Aide	Center	17.2	4
53. Machine Operator	Center	17.1	4
54. Mail Clerk	National Contract	16.7	4
55. Machinist	Center	16.1	4
56. Sheet Metal Worker	Center	15.6	4
57. Telecommunications	National Contract	15.4	3
58. Clerk, General	Center/National	15.4	3
59. Ward Clerk	Center	15.4	3
60. Forklift Operator	Center	14.9	3
61. Painter	Center/National	14.8	3
62. Offset Printer	Center	14.3	3
63. Landscaper	Center	14.0	3
64. Small Gas Engine Repair	Center	13.7	3
65. Duplicating Machine Operator	Center	13.6	2
66. Meat Cutter	Center	13.5	2
67. Accounting Clerk	Center	13.3	2
68. Animal Caretaker	Center	12.9	2
69. Warehouseman	Center	12.2	2
70. Forestry & Conservation	CCC	12.1	2
71. Cosmetology	Center	11.9	2
72. Heavy Equipment Repair	Center/National	11.2	2
73. Furniture Upholsterer	Center	10.6	1
74. Construction Labor	Center	10.4	1
75. Plasterer	Center/National	10.0	1
76. Electrical Appliance Repair	Center	7.9	1
77. Deckhand	National Contract	2.1	1
78. Stenographer	Center	-9.1	1
79. Keypunch Operator	Center	-9.7	1
80. Railway Clerk	National Contract	-18.6	1

*Statistics for Solar Installer were not available from BLS 1980 projections. This figure is based on the best estimate of Marvin Cetron, Ph.D., expert in labor market forecasting.

TABLE V-B-1

Decile Scoring and Weighting of Occupational Effectiveness Criteria

TRAINING OCCUPATION	CRITERIA FOR RATING TRAINING OCCUPATION EFFECTIVENESS							TOTAL UN-WEIGHTED SCORE	TOTAL WEIGHTED SCORE
	Percent Job Placed Decile Wgt Score	Average Wage of Job Decile Wgt Score	Cost Per Job Placement Decile Wgt Score	Cost Per Training Year Decile Wgt Score	Absolute Growth Decile Wgt Score	Percentage Growth Decile Wgt Score	Decile Wgt Score		
01 Sub Professional									
Draftsman	4x4 = 16	7x1 = 7	5x4 = 20	5x2 = 10	7x2 = 14	9x1 = 9		37	76
Cosmetologist	4x4 = 16	2x1 = 2	4x4 = 16	5x2 = 10	4x2 = 8	2x1 = 2		21	54
(N) Eng. Aide/Rodman	9x4 = 36	9x1 = 9	1x4 = 4	1x2 = 2	6x2 = 12	6x1 = 6		32	69
Electronic Tech.	10x4 = 40	10x1 = 10	4x4 = 16	2x2 = 4	8x2 = 16	9x1 = 9		43	95
Prof. Prog. Aide	2x4 = 8	5x1 = 5	10x4 = 40	10x2 = 20	3x2 = 6	4x1 = 4		34	83
02 Clerical/Sales									
Clerk Typist	2x4 = 8	4x1 = 4	8x4 = 32	10x2 = 20	9x2 = 18	5x1 = 5		38	87
(N) Clerk Typist	10x4 = 40	10x1 = 10	1x4 = 4	2x2 = 4	9x2 = 18	5x1 = 5		36	79
(C) Clerk Typist	1x4 = 4	4x1 = 4	1x4 = 4	4x2 = 8	9x2 = 18	5x1 = 5		24	43
Dupl. Mach. Opr.	1x4 = 4	1x1 = 1	7x4 = 28	8x2 = 16	2x2 = 4	2x1 = 2		21	55
Keypunch Opr.	3x4 = 12	6x1 = 6	6x4 = 24	6x2 = 12	1x2 = 2	1x1 = 1		23	57
(C) Stock Clerk	6x4 = 24	7x1 = 7	3x4 = 12	2x2 = 4	8x2 = 16	4x1 = 4		30	67
Retail Sales Clerk	4x4 = 16	1x1 = 1	10x4 = 40	10x2 = 20	10x2 = 20	5x1 = 5		40	102
Accounting Clerk	4x4 = 16	6x1 = 6	7x4 = 28	9x2 = 18	7x2 = 14	2x1 = 2		35	84
Secretary	5x4 = 20	1x1 = 1	3x4 = 12	5x2 = 10	10x2 = 20	9x1 = 9		33	72
Bookkeeper	2x4 = 8	3x1 = 3	7x4 = 28	9x2 = 18	8x2 = 16	6x1 = 6		35	79
Calc. Mach. Opr.	1x4 = 4	1x1 = 1	9x4 = 36	10x2 = 20	1x2 = 2	4x1 = 4		26	67
(N) Mail Clerk	1x4 = 4	1x1 = 1	1x4 = 4	5x2 = 10	3x2 = 6	4x1 = 4		15	29
Cashier/Checker	1x4 = 4	2x1 = 2	9x4 = 36	10x2 = 20	10x2 = 20	9x1 = 9		41	91
Clerk, General	3x4 = 12	5x1 = 5	9x4 = 36	10x2 = 20	10x2 = 20	3x1 = 3		40	96
(N) Clerk, General	10x4 = 40	9x1 = 9	6x4 = 24	2x2 = 4	10x2 = 20	3x1 = 3		39	98
Receptionist	1x4 = 4	2x1 = 2	7x4 = 28	9x2 = 18	7x2 = 14	8x1 = 8		34	74
Teller	2x4 = 8	5x1 = 5	10x4 = 40	10x2 = 20	8x2 = 16	8x1 = 8		43	97
Stenographer	1x4 = 4	4x1 = 4	3x4 = 12	9x2 = 18	1x2 = 2	1x1 = 1		19	41
Ward Clerk	4x4 = 16	3x1 = 3	9x4 = 36	10x2 = 20	10x2 = 20	3x1 = 3		39	98
(N) Railway Clerk	10x4 = 40	10x1 = 10	1x4 = 4	1x2 = 2	1x2 = 2	1x1 = 1		24	59

H- Home Builders (NAHB)

N - National Contractor
C - Civilian Conservation Corps (CCC)
B - Center & CCC or National Contractor

TABLE V-B-1 (Continued)

TRAINING OCCUPATION	CRITERIA FOR RATING TRAINING OCCUPATION EFFECTIVENESS							TOTAL UN-WEIGHTED SCORE	TOTAL WEIGHTED SCORE
	Percent Job Placed Decile Wgt Score	Average Wage of Job Decile Wgt Score	Cost Per Job Placement Decile Wgt Score	Cost Per Training Year Decile Wgt Score	Absolute Growth Decile Wgt Score	Percentage Growth Decile Wgt Score	Decile Wgt Score		
03 Service Occup.									
Custodial Maint.	3x4 = 12	6x1 = 6	5x4 = 20	6x2 = 12	10x2 = 20	5x1 = 5		35	75
(H) Custodial Maint.	8x4 = 32	3x1 = 3	3x4 = 12	4x2 = 8	10x2 = 20	5x1 = 5		33	80
(C) Custodial Maint.	4x4 = 16	5x1 = 5	2x4 = 8	3x2 = 6	10x2 = 20	5x1 = 5		29	60
Security Guard	9x4 = 36	3x1 = 3	8x4 = 32	7x2 = 14	8x2 = 16	8x1 = 8		43	109
Teacher, Nursery	1x4 = 4	1x1 = 1	9x4 = 36	5x2 = 10	6x2 = 12	6x1 = 6		28	69
Animal Caretaker	7x4 = 28	8x1 = 8	4x4 = 16	1x2 = 2	3x2 = 6	2x1 = 2		25	62
04 Forestry/Garden									
Landscaper	4x4 = 16	4x1 = 4	10x4 = 40	7x2 = 14	6x2 = 12	3x1 = 3		34	89
(C) Forestry & Cons.	7x4 = 28	6x1 = 6	5x4 = 20	3x2 = 6	1x2 = 2	2x1 = 2		24	64
Pest Control	7x4 = 28	3x1 = 3	10x4 = 40	9x2 = 18	2x2 = 4	10x1 =10		41	103
05 Food Service									
Waiter/Waitress	6x4 = 24	1x1 = 1	7x4 = 28	3x2 = 6	9x2 = 18	7x1 = 7		33	84
Cook	2x4 = 8	2x1 = 2	8x4 = 32	8x2 = 16	6x2 = 12	8x1 = 8		34	78
(C) Cook	5x4 = 20	5x1 = 5	2x4 = 12	2x2 = 4	6x2 = 12	8x1 = 8		28	57
Baker	1x4 = 4	4x1 = 4	6x4 = 24	7x2 = 14	2x2 = 4	7x1 = 7		27	57
Meat Cutter	8x4 = 32	7x1 = 7	6x4 = 24	6x2 = 12	4x2 = 8	2x1 = 2		33	85
Cook, Short Order	9x4 = 36	4x1 = 4	8x4 = 32	3x2 = 6	7x2 = 14	7x1 = 7		38	99
* Kitchen Helper	10x4 = 40	2x1 = 2	8x4 = 32	5x2 = 10	9x2 = 18	9x1 = 9		43	111

H- Home Builders (NAHB)

N - National Contractor
C - Civilian Conservation Corps (CCC)
B - Center & CCC or National Contractor

TABLE V-B-1(continued

TRAINING OCCUPATION	CRITERIA FOR RATING TRAINING OCCUPATION EFFECTIVENESS							TOTAL UN-WEIGHTED SCORE	TOTAL WEIGHTED SCORE
	Percent Job Placed Decile Wgt Score	Average Wage of Job Decile Wgt Score	Cost Per Job Placement Decile Wgt Score	Cost Per Training Year Decile Wgt Score	Absolute Growth Decile Wgt Score	Percentage Growth Decile Wgt Score	Decile Wgt Score		
06 Auto/Mach. Rep.									
Auto Mech. Helper	5x4 = 20	5x1 = 5	6x4 = 24	7x2 = 14	9x2 = 18	7x1 = 7		39	88
(C)Auto Mech. Help.	4x4 = 16	3x1 = 3	4x4 = 16	4x2 = 8	9x2 = 18	7x1 = 7		31	68
Auto Service/Rep.	4x4 = 16	4x1 = 4	8x4 = 32	8x2 = 16	9x2 = 18	8x1 = 8		41	94
(N)Auto Service/Rep.	8x4 = 32	9x1 = 9	1x4 = 4	1x2 = 2	9x2 = 18	8x1 - 8		36	73
(C)Auto Service/Rep.	8x4 = 32	7x1 = 7	5x4 = 20	4x2 = 8	9x2 = 18	8x1 = 8		41	93
Small Gas Eng.Rep.	4x4 = 16	2x1 = 2	5x4 = 20	9x2 = 18	4x2 = 8	3x1 = 3		27	67
Auto Body Rep.	5x4 = 20	5x1 = 5	8x4 = 32	8x2 = 16	3x2 = 6	7x1 = 7		36	86
(N)Auto Body Rep.	10x4 = 40	9x1 = 9	2x4 = 8	1x2 = 2	3x2 = 6	7x1 = 7		32	72
Auto Parts Clerk	9x4 = 36	5x1 = 5	10x4 = 40	10x2 = 20	10x2 = 20	5x1 = 5		49	126
Serv. Stat. Atten.	5x4 = 20	3x1 = 3	5x4 = 20	6x2 = 12	6x2 = 12	6x1 = 6		31	73
(N)Serv. Stat. Atten	2x4 = 8	2x1 = 2	7x4 = 28	7x2 = 14	6x2 = 12	6x1 = 6		30	70
Diesel Mech.	9x4 = 36	7x1 = 7	5x4 = 20	5x2 = 10	5x2 = 10	8x1 = 8		39	91
Heavy Equip Rep.	2x4 = 8	7x1 = 7	1x4 = 4	3x2 = 6	2x2 = 4	2x1 = 2		17	31
(N)Heavy Equip.Rep.	10x4 = 40	9x1 = 9	1x4 = 4	1x2 = 2	2x2 = 4	2x1 = 2		25	61
07 Construction Trades									
(H) Carpenter Const.	6x4 = 24	6x1 = 6	3x4 = 12	4x2 = 8	8x2 = 16	5x1 = 5		32	71
Carpenter Const.	3x4 = 12	4x1 = 4	5x4 = 20	7x2 = 14	8x2 = 16	5x1 = 5		32	71
(N)Carpenter Const.	8x4 = 32	10x1 = 10	1x4 = 4	1x2 = 2	8x2 = 16	5x1 = 5		33	69
Electrician	5x4 = 20	6x1 = 6	9x4 = 36	9x2 = 18	7x2 = 14	5x1 = 5		41	99
(H)Electrician	10x4 = 40	7x1 = 7	3x4 = 12	4x2 = 8	7x2 = 14	5x1 = 5		37	90
Cement Mason	3x4 = 12	2x1 = 2	5x4 = 20	5x2 = 10	5x2 = 10	10x1 =10		30	64
(N)Cement Mason	6x4 = 24	9x1 = 9	2x8 = 16	2x2 = 4	5x2 = 10	10x1 =10		35	69
(C)Cement Mason	9x4 = 36	6x1 = 6	3x4 = 12	3x2 = 6	5x2 = 10	10x1 =10		36	80
Brick/Stone Mas.	2x4 = 8	3x1 = 3	8x4 = 32	8x2 = 16	5x2 = 10	10x1 =10		36	79
(N)Brick/Stone Mas.	6x4 = 24	9x1 = 9	2x4 = 8	2x2 = 4	5x2 = 10	10x1 =10		34	65
(C)Brick/Stone Mas.	9x4 = 36	7x1 = 7	4x4 = 16	4x2 = 8	5x2 = 10	10x1 =10		39	87
(H)Brick/Stone Mas.	7x4 = 28	7x1 = 7	3x4 = 12	4x2 = 8	5x2 = 10	10x1 =10		36	75
(H)Cement Mason	3x4 = 12	8x1 = 8	2x4 = 8	3x2 = 6	5x2 = 10	10x1 =10		31	54

H- Home Builders (NAHB)
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TABLE V-B-1

TRAINING OCCUPATION	CRITERIA FOR RATING TRAINING OCCUPATION EFFECTIVENESS							TOTAL UN-WEIGHTED SCORE	TOTAL WEIGHTED SCORE
	Percent Job Placed Decile Wgt Score	Average Wage of Job Decile Wgt Score	Cost Per Job Placement Decile Wgt Score	Cost Per Training Year Decile Wgt Score	Absolute Growth Decile Wgt Score	Percentage Growth Decile Wgt Score	Decile Wgt Score		
07 Construction Trades									
(H)Painter	8x4 = 32	7x1 = 7	6x4 = 24	5x2 = 10	5x2 = 10	3x1 = 3		34	86
Painter	3x4 = 12	2x1 = 2	10x4 = 40	8x2 = 16	5x2 = 10	3x1 = 3		31	83
(N)Painter	7x4 = 28	9x1 = 9	2x4 = 8	2x2 = 4	5x2 = 10	3x1 = 3		28	62
Heavy Equip Oper	5x4 = 20	8x1 = 8	2x4 = 8	2x2 = 4	6x2 = 12	4x1 = 4		27	56
(N)Heavy Equip Oper	9x4 = 36	10x1 = 10	1x4 = 4	1x2 = 2	6x2 = 12	4x1 = 4		31	68
Plumber	5x4 = 20	4x1 = 4	6x4 = 24	7x2 = 14	6x2 = 12	7x1 = 7		35	81
(H)Plumber	8x4 = 32	8x1 = 8	3x4 = 12	3x2 = 6	6x2 = 12	7x1 = 7		35	77
(N)Plasterer	7x4 = 28	10x1 = 10	1x4 = 4	2x2 = 4	1x2 = 2	1x1 = 1		22	49
(N)Tilesetter	8x4 = 32	10x1 = 10	2x4 = 8	2x2 = 4	2x2 = 4	10x1 = 10		34	68
(C)Const. Labor	7x4 = 28	5x1 = 5	2x4 = 8	1x2 = 2	9x2 = 18	1x1 = 1		25	62
Welder, Spot	2x4 = 8	8x1 = 8	7x4 = 28	7x2 = 14	7x2 = 14	6x1 = 6		37	78
*Floor Layer	6x4 = 24	10x1 = 10	8x4 = 16	4x2 = 8	2x2 = 4	9x1 = 9		35	71
Insulation	6x4 = 24	6x1 = 6	9x4 = 36	10x2 = 20	3x2 = 6	9x1 = 9		43	101
(C)Welder, Spot	7x4 = 28	9x1 = 9	3x4 = 12	2x2 = 4	7x2 = 14	6x1 = 6		34	73
08 Electrical/Appl. Repair									
Air Con/Ref Mech	4x4 = 16	3x1 = 3	8x4 = 32	6x2 = 12	4x2 = 8	7x1 = 7		32	78
Elec Appl.Repair	5x4 = 20	4x1 = 4	9x4 = 36	9x2 = 18	2x2 = 4	1x1 = 1		30	83
Radio/TV Repair	3x4 = 12	5x1 = 5	5x4 = 20	10x2 = 20	3x2 = 6	8x1 = 8		34	71
Electrician Help.	3x4 = 12	1x1 = 1	6x4 = 24	8x2 = 16	9x2 = 18	7x1 = 7		34	78
(H)Solar Installer	10x4 = 40	9x1 = 9	4x4 = 16	3x2 = 6	2x2 = 4	5x1 = 5		33	80
(N) Telecommunica.	5x4 = 20	4x1 = 4	7x4 = 28	6x2 = 12	3x2 = 6	3x1 = 3		28	73

H- Home Builders (NAHB)

N - National Contractor
C - Civilian Conservation Corps (CCC)
B - Center & CCC or National Contractor

TABLE V-B-1

TRAINING OCCUPATION	CRITERIA FOR RATING TRAINING OCCUPATION EFFECTIVENESS							TOTAL UN-WEIGHTED SCORE	TOTAL WEIGHTED SCORE
	Percent Job Placed Decile Wgt Score	Average Wage of Job Decile Wgt Score	Cost Per Job Placement Decile Wgt Score	Cost Per Training Year Decile Wgt Score	Absolute Growth Decile Wgt Score	Percentage Growth Decile Wgt Score	Decile Wgt Score		
09 Industrial Production									
Machine Operator	10x4 = 40	10x1 = 10	8x4 = 32	7x2 = 14	4x2 = 8	4x1 = 4		43	108
Comb. Welder	5x4 = 20	8x1 = 8	6x4 = 24	6x2 = 12	7x2 = 14	6x1 = 6		38	84
(N)Comb. Welder	6x4 = 24	9x1 = 9	2x4 = 8	4x2 = 8	7x2 = 14	6x1 = 6		34	69
(C)Comb. Welder	6x4 = 24	8x1 = 8	4x4 = 16	3x2 = 6	7x2 = 14	6x1 = 6		34	74
Sheet Metal Wkr.	9x4 = 36	8x1 = 8	8x4 = 32	9x2 = 18	5x2 = 10	4x1 = 4		43	108
Furniture Uphols	6x4 = 24	3x1 = 3	7x4 = 28	7x2 = 14	1x2 = 2	1x1 = 1		25	72
Elec. Assembler	6x4 = 24	6x1 = 6	10x4 = 40	8x2 = 16	9x2 = 18	6x1 = 6		45	110
Offset Printer	8x4 = 32	7x1 = 7	5x4 = 20	5x2 = 10	3x2 = 6	3x1 = 3		31	78
Weld, Gas Arc	9x4 = 36	8x1 = 8	10x4 = 40	6x2 = 12	7x2 = 14	6x1 = 6		46	116
Mach. Oper, Lathc	7x4 = 28	5x1 = 5	6x4 = 24	6x2 = 12	4x2 = 8	6x1 = 6		35	83
Machinist	7x4 = 28	8x1 = 8	6x4 = 24	5x2 = 10	5x2 = 10	4x1 = 4		35	84
10 Transportation									
Warehouseman	8x4 = 32	6x1 = 6	10x4 = 40	8x2 = 16	5x2 = 10	2x1 = 2		39	106
Forklift Opr.	9x4 = 36	8x1 = 8	10x4 = 40	7x2 = 14	6x2 = 12	3x1 = 3		43	113
(N)Deckhand	10x4 = 40	10x1 = 10	3x4 = 12	1x2 = 2	1x2 = 2	1x1 = 1		26	67

H- Home Builders (NAHB)

N - National Contractor
C - Civilian Conservation Corps (CCC)
B - Center & CCC or National Contractor

TABLE V-B-1

TRAINING OCCUPATION	CRITERIA FOR RATING TRAINING OCCUPATION EFFECTIVENESS							TOTAL UN-WEIGHTED SCORE	TOTAL WEIGHTED SCORE
	Percent Job Placed Decile Wgt Score	Average Wage of Job Decile Wgt Score	Cost Per Job Placement Decile Wgt Score	Cost Per Training Year Decile Wgt Score	Absolute Growth Decile Wgt Score	Percentage Growth Decile Wgt Score	Decile Wgt Score		
11 Health Occupations									
Nurse Asst.	2x4 = 8	2x1 = 2	9x4 = 36	9x2 = 18	10x2 = 20	10x1 = 10		42	94
Dental Asst.	8x4 = 32	7x1 = 7	7x4 = 28	5x2 = 10	6x2 = 12	10x1 = 10		43	99
Lic. Prac. Nurse	6x4 = 24	10x1 = 10	3x4 = 12	4x2 = 8	8x2 = 16	10x1 = 10		41	80
Hosp. Diet Aide	3x4 = 12	1x1 = 1	9x4 = 36	9x2 = 18	8x2 = 16	5x1 = 5		35	88
Medical Asst.	3x4 = 12	6x1 = 6	4x4 = 16	6x2 = 12	4x2 = 8	9x1 = 9		32	63
* Med. Lab. Tech.	1x4 = 4	1x1 = 1	2x4 = 8	8x2 = 16	4x2 = 8	10x1 - 10		26	47
							Maximum	60	140
							Median	34	78

H- Home Builders (NAHB)

N - National Contractor
C - Civilian Conservation Corps (CCC)
B - Center & CCC or National Contractor

TABLE V-C
UNWEIGHTED RELATIVE EFFECTIVENESS
RANK OF JOB CORPS TRAINING OCCUPATIONS

UPPER GROUP

TRAINING OCCUPATION EFFECTIVENESS RANK	NUMBER OF TRAINEES	TRAINING PROVIDER	TOTAL SCORE
1. Auto Parts Clerk	45	Center	49
2. Welder, Gas Metal Arc.	60	Center	46
3. Electronic Assembler	631	Center	45
4. Dental Assistant	87	Center	43
5. Security Guard	84	Center	43
6. Machine Operator	82	Center	43
7. Kitchen Helper	32	Center/CCC	43
8. Forklift Operator	27	Center	43
9. Teller	27	Center	43
10. Sheet Metal Worker	26	Center	43
11. Electronic Tech.	25	Center	43
12. Insulation Worker	25	Center	43
13. Nurse Assistant	3,067	Center	42
14. Auto Service/Repairer	961	Center	41
15. Electrician	623	Center	41
16. Auto Service/Repairer	222	CCC	41
17. Cashier Checker	161	Center	41
18. Licensed Prac. Nurse	76	Center	41
19. Pest Control	42	Center	41
20. Clerk, General	598	Center	40
21. Retail Sales Clerk	433	Center	40
22. Auto Mechanic Helper	562	Center	39
23. Ward Clerk	188	Center	39
24. Warehouseman	180	Center	39
25. Clerk, General	62	B.R.A.C.	39
26. Brick/Stone Mason	45	CCC	39
27. Diesel Mechanics	28	Center	39
28. Clerk Typist	3,154	Center	38
29. Combination Welder	1,880	Center	38
30. Cook, Short Order	54	Center	38
31. Welder, Spot	601	Center	37
32. Draftsman	160	Center	37
33. Electrician	149	N.A.H.B.	37

TABLE V-C
UNWEIGHTED RELATIVE EFFECTIVENESS
RANK OF JOB CORPS TRAINING OCCUPATIONS

MIDDLE GROUP

TRAINING OCCUPATION EFFECTIVENESS RANK	NUMBER OF TRAINEES	TRAINING PROVIDER	TOTAL SCORE
34. Auto Body Repair	777	Center	36
35. Brick/Stone Mason	639	Center	36
36. Auto Service/Repair	131	U.A.W.	36
37. Brick/Stone Mason	88	N.A.H.B.	36
38. Cement Mason	55	CCC	36
39. Clerk Typist	51	B.R.A.C.	36
40. Custodial Maint.	1,226	Center	35
41. Cement Mason	338	OPCMI	35
42. Bookkeeper	313	Center	35
43. Plumber	277	Center	35
44. Accounting Clerk	276	Center	35
45. Plumber	209	N.A.H.B.	35
46. Machinist	87	Center	35
47. Machine Oper. Lathe	45	Center	35
48. Hospital Dietary Aide	39	Center	35
49. Floor Layer	34	Center/IBPAT	35
50. Cook	1,940	Center	34
51. Brick/Stone Mason	539	I.M.I.	34
52. Landscaper	397	Center	34
53. Receptionist	144	Center	34
54. Painter	95	N.A.H.B.	34
55. Electrician Helper	62	Center	34
56. Tilesetter	58	I.M.I.	34
57. Welder, Spot	50	CCC	34
58. Radio/TV Repair	47	Center	34
59. Combination Welder	930	CCC	34
60. Combination Welder	44	AFL-CIO	34
61. Prof. Program Aide	42	Center	34
62. Carpenter Const.	1,228	U.B.C.J.A.	33
63. Custodial Maint.	232	N.A.H.B.	33
64. Solar Installer	139	N.A.H.B.	33
65. Meat Cutter	71	Center	33
66. Secretary	69	Center	33
67. Waiter/Waitress	31	Center	33
68. Carpenter Const.	693	Center	32
69. Air Cond./Ref. Mech.	245	Center	32
70. Carpenter Const.	220	N.A.H.B.	32
71. Medical Assistant	100	Center	32
72. Auto Body Repair	51	U.A.W.	32
73. Eng. Aide/Rodman	30	I.U.O.E.	32

TABLE V-C
UNWEIGHTED RELATIVE EFFECTIVENESS
RANK OF JOB CORPS TRAINING OCCUPATIONS

LOWER GROUP

TRAINING OCCUPATION EFFECTIVENESS RANK	NUMBER OF TRAINEES	TRAINING PROVIDER	TOTAL SCORE
74. Painter	431	Center	31
75. Offset Printer	213	Center	31
76. Heavy Equip. Oper.	158	I.U.O.E.	31
77. Service Stat. Att.	121	Center	31
78. Auto Mech. Helper	109	CCC	31
79. Cement Mason	90	N.A.H.B.	31
80. Electricial Appl. Rep.	103	Center	30
81. Stock Clerk	85	CCC	30
82. Cement Mason	52	Center	30
83. Service Stat. Att.	30	AFL-CIO	30
84. Custodial Maint.	540	CCC	29
85. Cook	646	CCC	28
86. Painter	456	I.B.P.A.T.	28
87. Teacher, Nursery	124	Center	28
88. Telecommunications	56	AFL-CIO	28
89. Baker	244	Center	27
90. Heavy Equip. Oper.	158	Center	27
91. Small Gas Eng. Rep.	67	Center	27
92. Calc. Mach. Operator	47	Center	26
93. Deckhand	34	I.M.U.	26
94. Medical Lab Asst.	27	Center	26
95. Construction Labor	93	CCC	25
96. Furniture Upholsterer	60	Center	25
97. Heavy Equip. Rep.	27	I.U.O.E.	25
98. Animal Caretaker	25	Center	25
99. Forestry & Conser.	127	CCC	24
100. Railway Clerk	101	B.R.A.C.	24
101. Clerk Typist	64	CCC	24
102. Keypunch Operator	359	Center	23
103. Plasterer	290	O.P.C.M.I.	22
104. Dupl. Mach. Oper.	73	Center	21
105. Cosmetologist	67	Center	21
106. Stenographer	46	Center	19
107. Heavy Equip. Rep.	75	Center	17
108. Mail Clerk	38	AFL-CIO	15